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NMR study of enriched ^{195}Pt metal

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Abstract

The natural Pt metal has many isotopes. Among them only ^{195}Pt has the nuclear spin, $I = 1/2$. The Pt metal is an ideal system to investigate the concentration dependence of the nuclear spin order without changing the electronic properties. The NMR measurement was performed in the enriched 97% ^{195}Pt metal. The value of T_1T was the same as in the natural Pt. However T_2 in the enriched Pt was shorter than that in the natural Pt. We also observed the magnetic field dependence of T_2 in the enriched Pt. The nuclear spin order of the enriched ^{195}Pt will be fully discussed. © 2002 Elsevier Science B.V. All rights reserved.

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Keywords

Nuclear spin order, Nuclear spin-lattice relaxation, Spin-spin relaxation time